

1A Windows Presentation Foundation Explained

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About the Speaker

- Rob Layzell
 - Software Architect, Software Engineering, CA
 - Primarily responsible for CA Plex development
 - Live and work in San Francisco Bay Area
- 18 years experience in software development and IT
 - Worked with Obsydian since 1.5.2
 - Joined Synon through SPS Atlanta in 1996
 - Plex developer for 11 years
 - Patterns
 - Connector technologies
 - Runtimes (especially WinC, WinNTC and .NET)

Agenda

- Part 1 – The Technologies
 - Why Do *YOU* Need a New Client?
 - Windows Presentation Foundation Explained
 - XAML, Code-behind, XBAP, ClickOnce
- Part 2 – CA Plex r7.0
 - WinC/Java/RPG client migration
 - Rich client development
 - Web enablement ideas
 - What's Currently Missing?

Why do ***YOU*** need a new
client?
...and can CA Plex r7.0 Help?



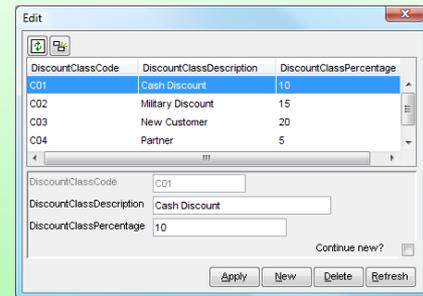
Why Do You Need a New Client?

A Brief History of Plex Client Generators

- Obsydian 1.0
- WinC
- WinWidgets

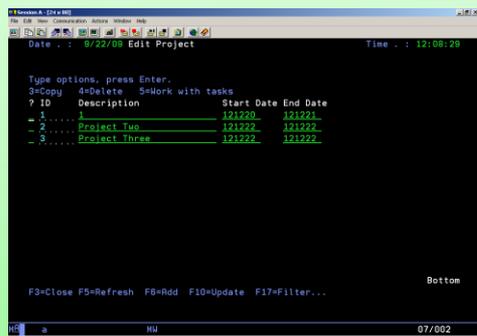


- COOL:Plex 4.5
- Java
- Swing

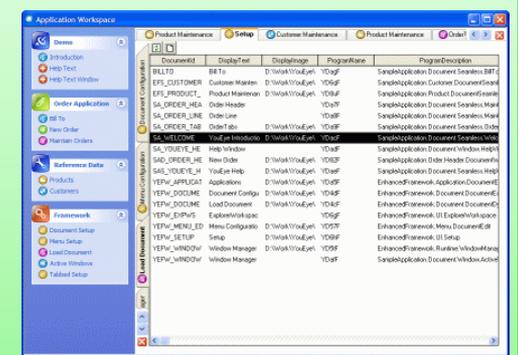


1994 1995 1996 1997 1998 1999 2000 2001 2002 ... 2011

- Obsydian 1.5
- RPGIII
- DDS



- Advantage Plex 5.0
- WinC
- MFC



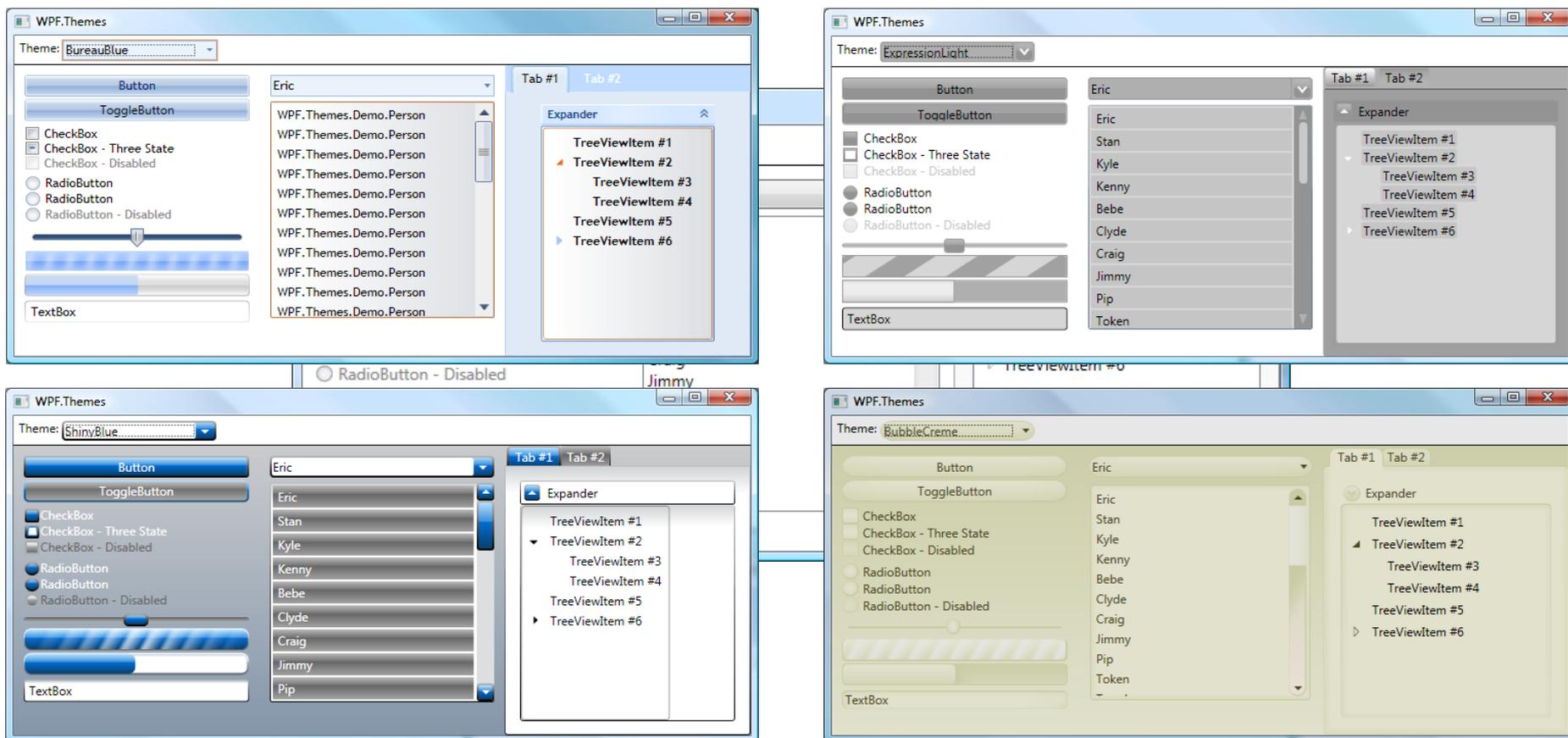
Why Do *You* Need a New Client? No New Client in 10 Years! Why?

- Lack of compelling technologies...
 - MFC
 - Implemented for WinC at Plex r5.0
 - We enjoy Visual Studio/MFC upgrades as much as you! 😊
 - No support for new Windows 7 technologies
 - WinForms
 - Glorified .NET wrapper for MFC
 - ASP.NET
 - Already have Web solutions (Websydian/ADC)



Why Do You Need a New Client? WPF Technology Benefit #1

— Separation of Design from Functionality

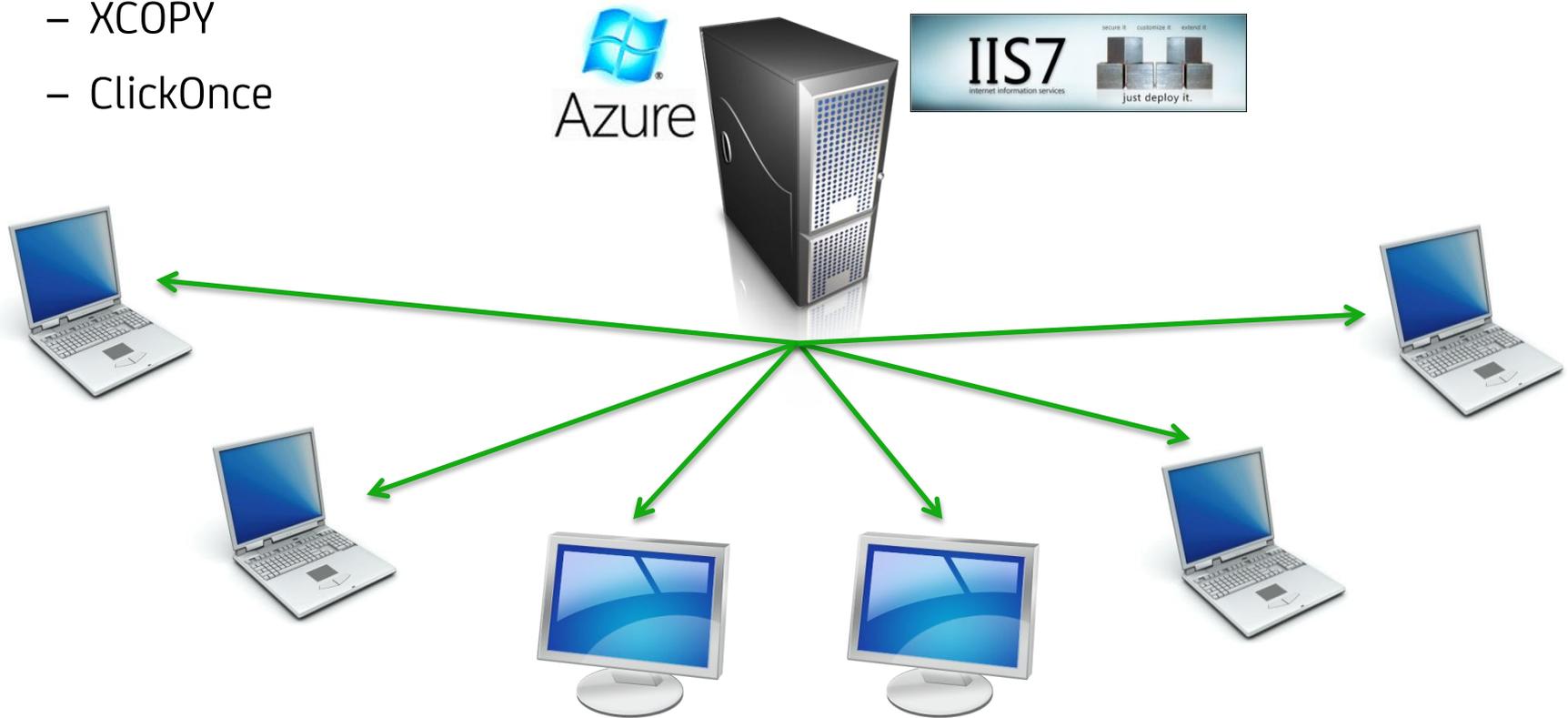


Why Do *You* Need a New Client?

WPF Technology Benefit #2

— Simplified deployment:

- XCOPY
- ClickOnce



Why Do *You* Need a New Client?

WPF Technology Benefit #3

- Rich-Web Enablement
 - XBAP – XAML Browser Applications
 - Silverlight
- Support for Windows 7 Technologies Built-in
 - Enhanced Accessibility
 - Multi-touch



Why Do *You* Need a New Client?

The Other CA Plex Benefits

- Backwards compatibility built in from the ground up
- UNICODE enabled
 - Not ANSI-code page
- No direct reliance on Visual Studio
 - Use freely available .NET Framework SDKs
 - Does NOT mean you cannot use Visual Studio!

Windows Presentation Foundation Explained



Windows Presentation Foundation Explained

The Basics

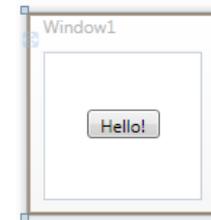
- Introduced in .NET 3.0
- Framework for rendering UIs for Windows-based applications
- Uses DirectX for UI rendering rather than GDI
 - Hardware acceleration
 - Modern UI features (Glass-effects, scaling)
 - Multimedia enabled (Videos on buttons)
- Primarily uses XAML to define UI Elements

Windows Presentation Foundation Explained

What is XAML?

- eXtensible Application Markup Language
 - XML-based language for declaring object structures.
 - Used in:
 - Windows Presentation Foundation / Silverlight
 - Windows Workflow

```
<Window x:Class="DemoApp.Window1"
  xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
  xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
  Title="Window1" Height="140" Width="130">
  <Canvas>
    <Button Canvas.Left="30" Canvas.Top="40" Name="button1" Width="50" Height="50">Hello!</Button>
  </Canvas>
</Window>
```



- Don't Worry About Binding! We'll take care of it for you...

Windows Presentation Foundation Explained

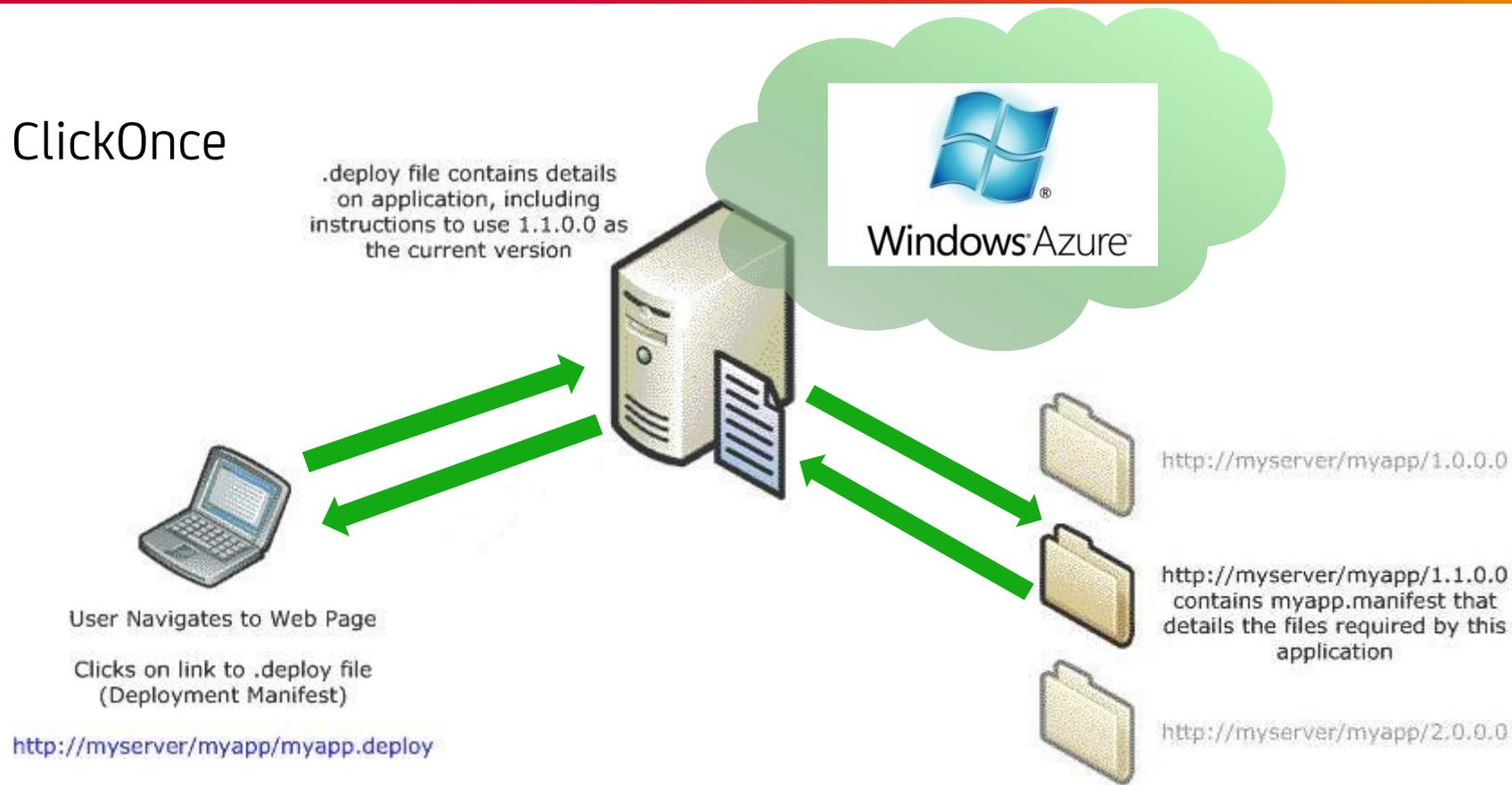
What is XBAP?

- XAML Browser Applications
 - Full WPF Applications
 - Hosted on IIS Server or Azure Cloud
 - Run in a trusted Sandbox environment in Browser
 - Generally designed to run in Internet Explorer only
- Silverlight
 - Subset of WPF Framework
 - Designed for Cross-platform deployment (OS X, Linux, Windows Mobile, Symbian)

Windows Presentation Foundation Explained

What is ClickOnce?

— ClickOnce



Summary



Summary

- WPF is here to stay
 - Used in all MS Products with UI
 - Solves the Fat vs. Web Client Conundrum
 - Not only **Web** enabled, but **Cloud** enabled
- What can you do now?
 - Stay for presentation **2A: The CA Plex .NET Client Generator** to find out!

Q & A

